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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/586,081

07/23/2007

Ralph Greiner

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9436

23363 7590 04/11/2011
CHRISTIE, PARKER & HALE, LLP
PO BOX 7068
PASADENA, CA 91109-7068

EXAMINER

YI, STELLA KIM

ART UNIT

PAPER NUMBER

1742

MAIL DATE

DELIVERY MODE

04/11/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/586,081	GREINER, RALPH	
	Examiner	Art Unit	
	Stella Yi	1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2 and 3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 2 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by BREDT et al. (2001/0050031).

Regarding Claim 2, BREDT et al. discloses a method for the manufacture of a three-dimensional object comprising the following steps:

- a first layer of a mixture of particulate material is deposited onto a downwardly movable surface on which an article is to be built, before any fluid has been delivered (Page 3, [0032]) (applying a layer of particles onto a target surface);
- an electromechanical ink-jet nozzle delivers an activating fluid to a portion of the said layer of particulate material (Page 4, [0039]); within a few minutes after the said activating fluid is delivered to the said particulate mixture, the fluid (with adhesive dissolved or suspended therein) infiltrates the less-soluble and slightly-porous particles (wherein the particles that are used contain at least one cavity and are at least partially dissolved by the jet of liquid), forming adhesive bonds between the filler and the fiber, the activating fluid is capable of bonding the particulate mixture in an agglomerated mass that is several times the mass of a droplet of the fluid (Page 4, [0042]) (irradiating a selected part of the layer that corresponds to a cross-section of the object with a jet of liquid such that the particles in the selected part become connected to each other);

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- radiation is used to solidify or cure the particulate mixture (Page 7, [0070]);

and

- the said previous steps of applying a layer of particulate mixture, applying the fluid, and indexing the movable surface downward are repeated until the final article is completed (Page 5, [0045]) (repeating the steps of application and irradiation such that the connected parts of adjacent layers connect to each other to form the object).

Regarding Claim 3, BREDT et al. discloses that the particles are reactive and can be solidified by applying ultraviolet radiation (Page 7, [0070]). BREDT et al. discloses that the particles are at least slightly-porous (Page 4, [0042]) and when it is irradiated, the pores of the particles will inherently be preserved after solidification or curing by the radiation from the ultraviolet.

Response to Arguments

Applicant's arguments filed 02/07/2011 have been fully considered but they are not persuasive.

Applicant argues that the "slight porosity" in the powdered material disclosed by BREDT et al. is due to nothing more than the interstitial spaces between adjacent particle grains that comprise the powder and that it is not due to cavities within the grains themselves. Examiner respectfully disagrees because BREDT et al. discloses in paragraph [0042]: "the fluid (with adhesive dissolved or suspended therein) infiltrates the less-soluble and slightly-porous particles". BREDT et al. discloses said particles are fibers [0008] and that the said fibers have a high affinity for solvent [0053]. In other

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words, BREDT et al. discloses that the said fibers are slightly-porous and can absorb the solvent. Therefore, the fibers (particles) are porous and when it is irradiated, the pores of the particles will inherently be preserved after solidification or curing by the radiation from the ultraviolet.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stella Yi whose telephone number is 571-270-5123. The examiner can normally be reached on Monday - Thursday from 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SY

/Jeff Wollschlager/
Primary Examiner, Art Unit 1742